

CLAIM AMENDMENTS

1. (Currently Amended) A solid glass composite matrix comprising glass granules and a binder resin which has ~~set to bind~~ been cured and which binds the glass granules into a solid composite, wherein the solid glass composite matrix comprises more than 60% w/w of glass granules,

wherein the glass composite matrix comprises glass granules of grain size of 4mm-6mm.

2. (Currently Amended) A solid glass composite matrix according to claim 1, ~~wherein other bulking sources are added to the resin to top up the glass level~~ which further comprises bulking sources selected from the group consisting of sand, silica, bauxite and flint.

3. (Canceled).

4. (Previously Presented) A solid glass composite matrix according to claim 1, wherein the glass granules are derived from waste glass.

5. (Currently Amended) A solid glass composite matrix according to claim 1, ~~wherein the~~ which further comprises glass granules in the matrix which have a grain size substantially between 0.0mm and 20.0mm.

6. (Currently Amended) A solid glass composite matrix according to claim 1, wherein at least 50% w/w of the glass composite matrix further comprises glass granules of grain size between 0mm-6mm.

7. (Currently Amended) A solid glass composite matrix according to claim 1, wherein at least 10% w/w of the glass composite matrix comprises glass granules of grain size between 0mm-4mm.

8. (Currently Amended) A solid glass composite matrix according to claim 1, wherein at least 10% w/w of the glass composite matrix comprises glass granules of grain size of 4mm-6mm.

9. (Previously Presented) A solid glass composite matrix according to claim 1, wherein granules between 6-10mm are present at a level less than 50% w/w.

10. (Previously Presented) A solid glass composite matrix according to claim 1, wherein the binder resin comprises between 5% w/w and 20% w/w of the composite matrix.

11. (Previously Presented) A solid glass composite matrix according to claim 1, wherein a coupling agent is present in the composite, to couple the glass and resin components together during setting of the composite.

12. (Previously Presented) A solid glass composite matrix according to claim 1, wherein a reactive diluent is added to suit viscosity requirements.

13. (Canceled).

14. (Previously Presented) A solid glass composite matrix according to claim 12, wherein the diluent is present at a level of 5-30% of the pre-cured resin.

15. (Previously Presented) A solid glass composite matrix according to claim 11, wherein the coupling agent is present in the pre-cured resin at a level of 0.1-4.0% w/w.

16. (Previously Presented) A solid glass composite matrix according to claim 11, wherein the ratio of glass granules to binder resin and coupling agent is in the range of 6:1 to 3:1.

17. (Currently Amended) A method of producing a glass composite comprising the steps of:

contacting an aggregate of glass granules of average grain size between 0mm and less than 10mm with a binder resin,

mixing the granules into the un-set resin, and

allowing the resin to set so that the resin sets the granules into a solid composite matrix.

18. (Previously Presented) A solid glass composite matrix according to claim 1, wherein the glass granules for screening applications have lead or barium or combined lead/barium levels of at least 3% by weight.

19. (Previously Presented) A solid glass composite matrix according to claim 18, wherein the lead or barium levels or combined lead/barium levels for such applications are in the range 10-70% by weight in the glass granules.

20. (New) The solid glass composite matrix of Claim 1 wherein the glass granules comprise between 65% and 85%w/w of the composite matrix.

21. (New) The solid glass composite matrix of Claim 1 which has a ratio of glass granules to binder resin and a coupling agent which is in the range of 6:1 to 3:1.

22. (New) The solid glass composite matrix of Claim 1 wherein the binder resin is a cured resin selected from the group consisting of epoxy resins, polyurethane binders, unsaturated polyester binders and poly C₁-C₂ alkyl methacrylate binders.

23. (New) The solid glass composite matrix of Claim 1 which has a binder resin which is an epoxy resin.

24. (New) The method of Claim 17 where the binder resin is admixed with a coupling agent which is effective to couple the glass and resin components together by chemical reaction.

25. (New) A solid glass composite matrix comprising glass granules and a binder resin which has been cured, and binds the glass granules into a solid composite,

wherein said binder resin further comprises a reactive diluent which is added to control viscosity; and

wherein the reactive diluent is selected from the group consisting of mono-functional 1 aliphatic glycidyl ethers, di-functional 1 aliphatic glycidyl ethers, mono-functional cycloaliphatic ethers, di-functional cycloaliphatic glycidyl ethers, mono-functional 1 aliphatic glycidyl esters, di-functional 1 aliphatic glycidyl esters, mono-functional cycloaliphatic glycidyl esters, and di-functional cycloaliphatic glycidyl esters.